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NOTICE OF ALLOWANCE AND FEE(S) DUE

27128 7590 04/02/2009 HUSCH BLACKWELL SANDERS LLP

720 OLIVE STREET SUITE 2400 ST. LOUIS, MO 63101 EXAMINER

WEISS, HOWARD

ART UNIT PAPER NUMBER

2814 DATE MAILED: 04/02/2009

ſ	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
Ξ	10/563,269	01/04/2006	Tae-Kyung Yoo	718936,11	6413	

 ${\tt TITLE~OF~INVENTION: A~METHOD~OF~MANUFACTURING~A~GALLIUM~NITRIDE~SEMICONDUCTOR~LIGHT~EMITTING~DEVICE}\\$

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	07/02/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	ed below or directed oth	ng the Patent, advance onerwise in Block 1, by (rders and notification a) specifying a new o	of n	naintenance fees w pondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address as rate "FEE ADDRESS" for
	ock 1 for any change of address)	Note: A certificate of mailing can only be used for domestic ma Fee(s) Transmittal. This certificate cannot be used for any other ac papers. Each additional paper, such as an assignment or formal dr have its own certificate of mailing or transmission.				or any other accompanying		
27128	7590 04/02	V2009						
HUSCH BLAC 720 OLIVE STE SUITE 2400	ERS LLP			Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.				
ST. LOUIS, MC	63101							(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/563,269	01/04/2006	•	Tae-Kyung Yoo				718936.11	6413
TITLE OF INVENTION	: A METHOD OF MAN	TUFACTURING A GALI	LIUM NITRIDE SEMI	ICO1	NDUCTOR LIGHT	r EMI	TING DEVICE	
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUI	SFEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300		\$0		\$1055	07/02/2009
EXAM	IINER	ART UNIT	CLASS-SUBCLASS					
WEISS, H		2814	257-072000					
I. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form FTO/SB/1/22) attached. "Fee Address' indication (or "Fee Address" Indication form FTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(2) the name of a s registered attorney	of up to 3 registered patent attorneys alternatively, f a single firm (having as a member a racy or agent) and the names of up to the nationary or agent). If no name is				
(A) NAME OF ASSI	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assignee pletion of this form is NO	data will appear on the data w	he pa g an a	ntent. If an assign assignment. and STATE OR C	OUNT	'RY)	ocument has been filed for
Please check the appropr	rate assignee category or	categories (will not be p	rinted on the patent):	_	Individual - Co	orporati	on or other private gro	up entity Government
4a. The following fee(s) Issue Fee Publication Fee (N Advance Order -	vo small entity discount p		b. Payment of Fee(s): (A check is enclos Payment by credi The Director is he overpayment, to I	ed. t care	i. Form PTO-2038	is atta	ched. required fee(s), any de	
 Change in Entity Sta Applicant claim 	tus (from status indicate s SMALL ENTITY statu		D. Apolicant is no	lons	er claiming SMAI	LEN'	ITTY status. See 37 CF	R 1.27(g)(2).
NOTE: The Issue Fee an	d Publication Fee (if req	uired) will not be accepte						e assignee or other party in
Authorized Signature					Date			
Typed or printed nam			Registration N	lo				
This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain 1.14. This collection i depending upon the i e Chief Information O COMPLETED FORM	or n s esti indiv ffice S TC	etain a benefit by t imated to take 12 i idual case. Any co r, U.S. Patent and O'THIS ADDRESS	he pub minuter mment Trader S. SEN	tic which is to file (and to complete, includin s on the amount of tir nark Office, U.S. Depa D TO: Commissioner f	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450,

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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APPLICATION NO.	APPLICATION NO. FILING DATE FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,269	01/04/2006	Tae-Kyung Yoo	718936.11	6413
27128	7590 04/02/2009		EXAM	IINER
HUSCH BLACI	KWELL SANDERS I	WEISS, HOWARD		
720 OLIVE STRE	EET	ART UNIT	PAPER NUMBER	
SUITE 2400 ST. LOUIS, MO	53101		2814 DATE MAILED: 04/02/200	19

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 327 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 327 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)	
10/563,269	YOO ET AL.	
Examiner	Art Unit	
HOWARD WEISS	2014	

-- The MALING DATE of this communication appears on the cover sheat with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to an RCE filed 2/25/2009.
- The allowed claim(s) is/are 9 and 11-16.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDOMMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other ___

Page 2

Application/Control Number: 10/563,269

Art Unit: 2814

Attorney's Docket Number: 718936.11

Filing Date: 1/4/2006

Continuing Data: 371 of PCT/KR04/01770; RCE established 2/25/2009

Claimed Foreign Priority Date: 718/2003, 10/10/2003 (KRX)

Applicant(s): Yoo et al. (Park, Kim)

Examiner: Howard Weiss

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/25/2009 has been entered.

Examiner's Amendment

- 2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- The application has been amended as follows: the title has been changed to read ---A Method of Manufacturing a Gallium Nitride Semiconductor Light Emitting Device---

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance: a method of manufacturing a gallium nitride semiconductor light emitting device as claimed including using ammonia and hydrazine material with a flow ratio of hydrazine to gallium in the range of 1 to 10 and eliminating any hydrogen radicals without a subsequent annealing process could not be anticipated nor, in combination, be rendered obvious over the prior art of record.

Application/Control Number: 10/563,269

Art Unit: 2814

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- 5. Papers related to this application may be submitted directly to Art Unit 2814 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The Art Unit 2814 Fax Center number is (571) 273-8300. The Art Unit 2814 Fax Center is to be used only for papers related to Art Unit 2814 applications.
- 6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Howard Weiss at (571) 272-1720 and between the hours of 7:00 AM to 3:00 PM (Eastern Standard Time) Monday through Friday or by e-mail via Howard.Weiss@uspto.gov. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy, can be reached on (571) 272-1705.
- 7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit: 2814

8. The following list is the Examiner's field of search for the present Office Action:

Field of Search	Date
U.S. Class / Subclass(es): 257/ E33.028; 438/47	thru 3/23/2009
Other Documentation: none	
Electronic Database(s): EAST	thru 3/23/2009

HW/hw 1 April 2009 /Howard Weiss/ Primary Examiner Art Unit 2814